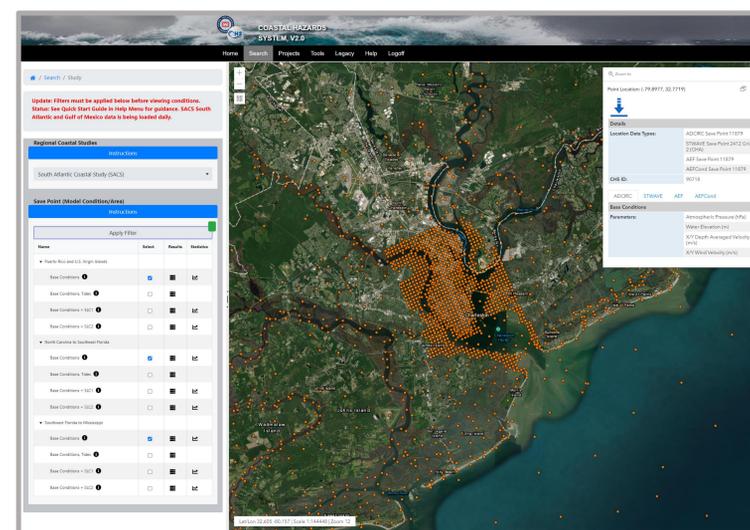
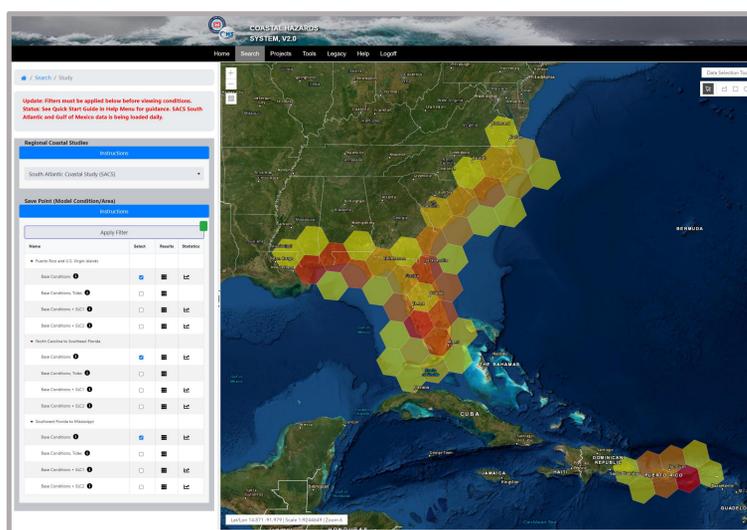
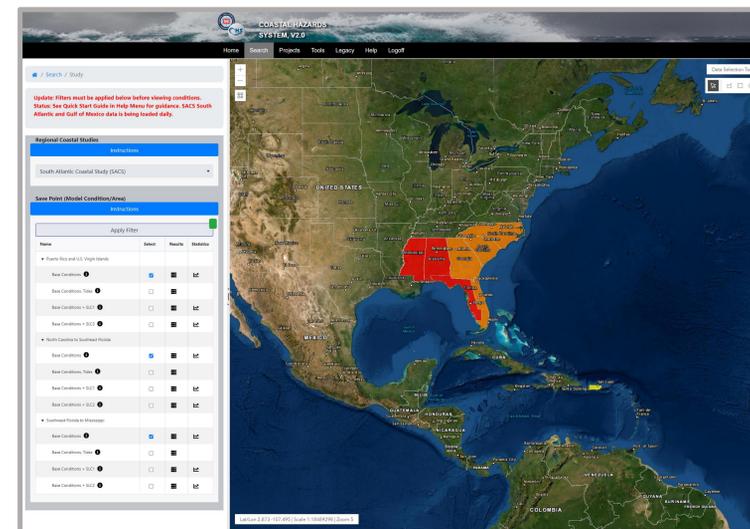
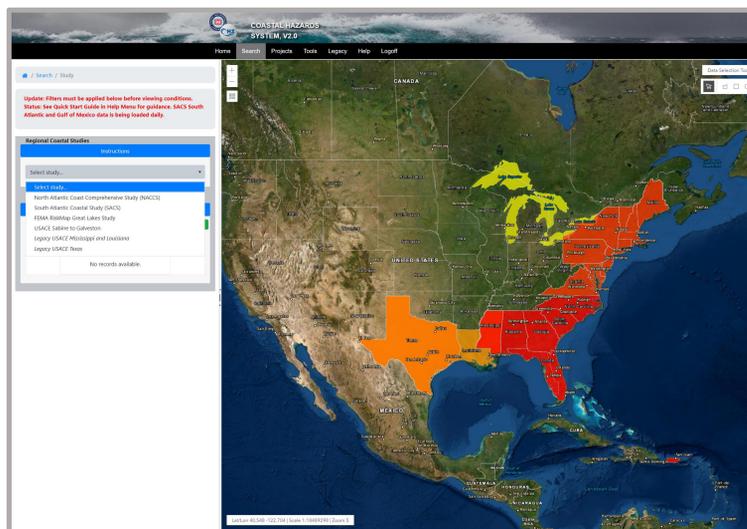


Coastal Hazards System



The Coastal Hazards System (CHS) is a national effort for quantification of coastal hazards induced by hurricanes and other extreme storms, such as storm surge, waves, currents, and wind. The foundation of the CHS is its probabilistic coastal hazard analysis (PCHA) framework. The CHS also provides an industry-standard database and easily accessible environment for development, storage, and rapid access to PCHA results, additional information such as tides and rainfall, and metadata. A user-friendly web interface provides easy access, mining, plotting, and downloading of hydrodynamic model and probabilistic results for historic and synthetic coastal storms for most U.S. coastlines.



ERDC **CHL** COASTAL & HYDRAULICS LABORATORY

COASTAL HAZARDS SYSTEM, V2.0

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STUDY **LOCATION** **STORM**

The Coastal Hazards System (CHS) is a national coastal storm hazard data resource for probabilistic coastal hazard assessment (PCHA) results and statistics, storm numerical and probabilistic modeling results including storm surge, astronomical tide, waves, currents, and wind. CHS is an up-to-date and easily accessible environment for development, storage, and rapid access to PCHA hazard results, additional information such as tides, wind and rainfall, and documentation of the results. Based on high-resolution numerical modeling of coastal storms that spanning practical probability and forcing parameters, PCHA results directly support probabilistic design or risk assessment.

UPDATES **DOCUMENTS**

- (2021/07/08) NEW: Modifications as part of revisions to the New CHS
- (2021/07/23) SACS: North Carolina to South East 1-bands (NSEFL) Data Population
- (2021/06/01) SACS: Puerto Rico and U.S. Virgin Islands (PRUSVI) Data Updated and Available
- (2021/04/30) Updated Version of the Coastal Hazards Information System (CHIS) v.1.0 released
- (2016/07/29) ERDC/CHL TR 15-14: North Atlantic Coast Comprehensive Study (NACCOS) Coastal Storm Model Simulations: Waves and Water Levels - August 2015
- (2016/11/10) ERDC/CHL TR 15-9: North Atlantic Coast Comprehensive Study (NACCOS) Coastal Storm Hazards from Virginia to Maine - November 2015
- (2015/10/15) NACCOS Master Tracks
- (2014/08/14) Storm Names, Tracks and Parameters

Our Mission: The mission of the U.S. Army Corps of Engineers is to deliver vital public and military engineering services, partnering in peace and war to strengthen our nation's security, energize the economy and reduce risks from disasters.

Research and Development Center Website: The official public website of the U.S. Army Engineer Research and Development Center (ERDC). For website corrections, write to: webpage@erdc.dren.mil

Accessibility: CHS is accessible to all users. For more information, visit: www.eras.gov

Quality Facts: CHS is developed in accordance with the following standards: EEO & 508 SP, FDIS, and 508 SP.

Privacy & Security: CHS is developed in accordance with the following standards: EEO & 508 SP, FDIS, and 508 SP.

Site Map: CHS is available in English, Spanish, and Chinese.

IT: CHS is available in English, Spanish, and Chinese.

FOIA: CHS is available in English, Spanish, and Chinese.

Small Business: CHS is available in English, Spanish, and Chinese.

USARMC: CHS is available in English, Spanish, and Chinese.

Need Behind CHS

Flood and wind damage from coastal storms have resulted in billions of dollars in damage for United States coastlines in recent decades. Federal agencies and partners need accurate and comprehensive coastal storm hazard information to support planning, engineering design, and emergency management operations. The hazard estimates also need to include a complete description of uncertainty for use in risk assessments.

Benefits of CHS

The CHS provides comprehensive coastal data and the associated uncertainties in easily ingestible standardized formats producing great potential for monetary savings as well as improved understanding of the complex processes by Federal, State, and local governments and the public at large. Based on high-resolution hydrodynamic modeling of coastal storms that span practical and physical probability spaces, the PCHA results in CHS directly support risk assessment and engineering design.

<https://chs.erd.dren.mil>

Contact: CoastalHazardsGroup@erd.dren.mil